

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

PCT

(10) International Publication Number
WO 2004/045494 A3

(51) International Patent Classification⁷: **A61K 9/00, 9/14**

CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/IL2003/000977

(22) International Filing Date:
18 November 2003 (18.11.2003)

(25) Filing Language:
English

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language:
English

(30) Priority Data:
60/427,545 20 November 2002 (20.11.2002) US

(71) Applicant (for all designated States except US): **BAR-ILAN UNIVERSITY [IL/IL]**; 52900 Ramat Gan (IL).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(72) Inventors; and
(75) Inventors/Applicants (for US only): **MARGEI, Shlomo [IL/IL]**; 14 Habaal Shem Tov St., 76210 Rehovot (IL). **SHEIHET, Larisa [IL/IL]**; 124 Derech Hahagana St., 67422 Tel-Aviv (IL). **TENNENBAUM, Tamar [IL/IL]**; 20 Kinor St., 48590 Rosh Ha'ain (IL).

(88) Date of publication of the international search report:
16 September 2004

(74) Agents: **PYERNIK, Moshe et al.**; P.O. Box 10012, 84106 Beer Sheva (IL).

(15) Information about Correction:

Previous Correction:
see PCT Gazette No. 32/2004 of 5 August 2004, Section II

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/045494 A3

(54) Title: **BIOLOGICAL GLUE BASED ON THROMBIN-CONJUGATED NANOPARTICLES**

(57) Abstract: Thrombin-conjugated nanoparticles, wherein said nanoparticles comprise one or more organic and/or inorganic compounds and process for preparing the same are provided. The thrombin-conjugated nanoparticles are suitable for use in the preparation of fibrin-based biological sealant.